CANVaS Project
Import/Export Process

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Introduction

The purpose of this document is to assist those using the Import or Export process to supply or retrieve data from the CANVaS web application. CANVaS has an integrated tool by which partners and localities can interface their applications to CANVaS. It has been determined that a batch process form of data entry be made available to the CANVaS application. The use of the web application as the interface then becomes a focal point to meet those requirements.

Document Scope

The scope of this document will be focused on the areas of importing and exporting of data to and from a provider's internal system. This document is technical in nature and will cover the following topics:

Importing of Data

- Datasets that are requested from the localities and their respective data elements both required and optional
- File layouts needed for the different datasets that will be imported into CANVaS
- Error Reports with error definitions and the effects on the imports
- Availability of imported data for export or viewing through the CANVaS web interface

Exporting of Data

- The different datasets available for exporting from the system
- The fields and layout of the files created by the export process
- The definition of each of the fields included in the respective datasets
- The ability to export CANS tool definitions for inclusion in your internal systems

Topics that will not be covered in this document include:

- How to setup your application to utilize Import and Export processes of CANVaS.
- What to do with the resulting data exported from CANVaS.
- Troubleshoot issues when performing an Import or Export process.

Requirements

The Import and Export processes available to the localities for the CANS assessment tools and data are available only through the CANVaS web application. Unlike other batch processes, the CANVaS import validates and processes data at the point of delivery to the system. There is no available FTP process for data submission. Localities will be required to supply at least one user to be assigned a CANVaS login for data submission and retrieval. More accounts may be created at the locality's discretion.

To submit assessment data to CANVaS, clinicians of the locality will be required to have received appropriate CANS training and have been certified on the tools. This certification will need to be reported directly to OCS and the CANVaS Help Desk. Failure to register certified clinicians prior to data submission will result in rejection of 100% of the assessment data submitted. Localities must submit test or practice data to the CANVaS Quality Assurance server. This allows localities the opportunity to review and refine their process without the risk of corrupting live data. Once the locality has successfully supplied at least 2 error-free submissions for both consumer and assessment imports, the locality will be requested to supply a small data sample to the CANVaS Systems Administrator for review. After approval, access to the live system will be granted to assigned users for Importing.

Export Process

The export process provided by CANVaS has several different options available to localities to best assist in the utilization of the application, as well as, the functionality to integrate data into their Electronic Medical Record or other Case Management type application. The initial goal of CANVaS is to provide OSC localities with real-time feedback concerning a consumer's assessment, which is based on one or more sophisticated algorithms. The web application provides for the direct input of consumer demographic information as well as CANS assessment information in any of the current state certified tools. The tools, once completed, trigger a process which processes the results of the assessment through one or more algorithms to produce a wide range of recommendations. These recommendations are available immediately upon saving a completed assessment. Because of this real-time, interactive feedback, many have determined it easiest for their practice to enter their assessment data directly into the CANVaS system. This realization evolved into providing a means to get not only the assessment data, but the recommendations as well, back to localities' permanent records.

The CANVaS system provides the means for the locality to extract data out of the system in real-time without supplying a formal request to OCS. The export process supports extracts of consumer demographic, assessment, and assessment recommendations data. Additionally, the export supports an extract of current assessment tools. This functionality is effective for localities planning to use the CANS tools in their own system and then import assessment data into CANVaS.

Types of Exports Available

The types of exports available to partners of OCS are as follows:

Types of Exports	
Consumer Information Export	This is an export of consumer demographic information. This list will include only consumers who have had assessment between the supplied start and ending dates.
Summary Assessment Information Export	This is an export of the assessment and resulting algorithm recommendations for consumers who have received an assessment between the supplied start and ending dates.
Detail Assessment Information Export	This is an export of consumer assessments and the corresponding answers to each of the questions for consumers who have received an assessment between the supplied start and ending dates.
Consumer Info and Detailed Assessment Export	This is an export of both consumer demographic and associated assessment answers combined into a second extract file. This export is based upon consumers who have received an assessment between the supplied start and ending dates.
Assessment Tool Export	This is an export of the individual assessment tools including all related answers and their IDs.

Export File Layouts

Consumer Information Export

Consumer Information Export			
Field Name	**Data Type**	**Length**	**Comments/Description**
Internal_ID	String	20	This is the provider's internal client identifier used at the provider's practice in their internal systems.
Consumer_Last_Name	String	30	
Consumer_First_Name	String	25	
Consumer_Middle_Name	String	25	
Consumer_Birth_Date	DateTime		
Consumer_Mom_Maiden	String	25	Contains the consumer's mother's maiden name
Consumer_Zipcode	String	10	
Consumer_Gender	Character	1	M = Male; F = Female

Consumer Information Export			
Consumer_SSN	String	11	Consumer's Social Security Number
Consumer_Medicaid_ID	Integer		
Create_Date	DateTime		Date & Time the record was first created in the CANVaS.
Last_Update_Date	DateTime		Date & Time the record was last updated in the CANVaS.
Consumer_Ethnicity	String	30	
Race_Native_Am_Ind	Boolean		
Race_Asian_Ind	Boolean		
Race_Black_Ind	Boolean		
Race_White_Ind	Boolean		
Race_Hawaiian_Ind	Boolean		

Summary Assessment Info Export

Summary Assessment Info Export			
Field Name	**Data Type**	**Length**	**Comments/Description**
Internal_ID	String	20	Provider's recognized ID for the consumer of this assessment
Algorithm_Desc	String	50	The name of the algorithm that was processed for this individual's assessment.
Option_Desc	String	MAX	The resulting recommendation option of algorithm for this assessment.
Visit_Date	DateTime		Date of the assessment
Clinician_ID	String	25	The Provider's recognized ID for the clinician who originally performed the assessment
Assessment_Reason_CD	Integer		1 = Initial Assessment, 2 = Reassessment Assessment, 3 = Transition/Discharge
Tool_Desc	String	80	The name of the CANS tool performed for this assessment
Tool_ID	Integer		The identifier used to represent the tool used in the assessment

Detail Assessment Info Export

Detailed Assessment Information Export			
Field Name	**Data Type**	**Length**	**Comments/Description**
Internal_ID	String	20	Provider's recognized ID for the consumer of this assessment
Visit_Date	DateTime		Date of the assessment
Tool_ID	Integer		The identifier used to represent the tool used in the assessment
Tool_Desc	String	80	The name of the CANS tool performed for this assessment
Module_ID	Integer		The identifier used to represent the module within the tool for this assessment
Module_Name	String	50	Describes the module as referenced by the Module_ID
Question_ID	Integer		The identifier used to represent the question within the module for this assessment
Question_Text	String	MAX	Describes the question as referenced by the Question_ID
Answer_ID	Integer		The identifier used to represent the answer selected for this question within the assessment
Answer_Desc	String	MAX	Describes the answer as referenced by the Answer_ID
Clinician_ID	String	25	The Provider's recognized ID for the clinician who originally performed the assessment

Consumer Info and Detailed Assessment Information Export

Consumer Information & Detailed Assessment Information Export			
Field Name	**Data Type**	**Length**	**Comments/Description**
Internal_ID	String	20	This is the provider's internal client identifier used at the provider's practice in their internal systems.
Consumer_Last_Name	String	30	
Consumer_First_Name	String	25	
Consumer_Middle_Name	String	25	
Consumer_Birth_Date	DateTime		
Consumer_Mom_Maiden	String	25	Contains the consumer's mother's maiden name
Consumer_Zipcode	String	10	
Consumer_Gender	Character	1	M = Male; F = Female
Consumer_SSN	String	11	Consumers Social Security Number
Consumer_Medicaid_ID	Integer		

Consumer Information & Detailed Assessment Information Export			
Field Name	**Data Type**	**Length**	**Comments/Description**
Create_Date	DateTime		Date & Time the record was first created in the CANVaS.
Last_Update_Date	DateTime		Date & Time the record was last updated in the CANVaS.
Consumer_Ethnicity	String	30	
Race_Native_Am_Ind	Boolean		
Race_Asian_Ind	Boolean		
Race_Black_Ind	Boolean		
Race_White_Ind	Boolean		
Race_Hawaiian_Ind	Boolean		
Visit_Date	DateTime		Date of the assessment
Tool_ID	Integer		The identifier used to represent the tool used in the assessment
Tool_Desc	String	80	The name of the CANS tool performed for this assessment
Module_ID	Integer		The identifier used to represent the module within the tool for this assessment
Module_Name	String	50	Describes the module as referenced by the Module_ID
Question_ID	Integer		The identifier used to represent the question within the module for this assessment
Question_Text	String	MAX	Describes the question as referenced by the Question_ID
Answer_ID	Integer		The identifier used to represent the answer selected for this question within the assessment
Answer_Desc	String	MAX	Describes the answer as referenced by the Answer_ID
Clinician_ID	String	25	The Provider's recognized ID for the clinician who originally performed the assessment

Assessment Tool Export

Assessment Tool Export			
Field Name	**Data Type**	**Length**	**Comments/Description**
Tool_ID	Integer		The internal ID used by CANVaS to differentiate assessment tools
Tool_Desc	String	80	Description or name of the tool

Assessment Tool Export			
Field Name	**Data Type**	**Length**	**Comments/Description**
Module_Order	Integer		The order for which this module is presented
Module_ID	Integer		The internal ID used by CANVaS to differentiate modules within an assessment tool
Module_Name	String	50	The name for the module to display
Question_Text	String	MAX	The description or name of the question to display
Question_Order	Integer		The order for which a question is presented
Question_ID	Integer		The internal ID used by CANVaS to differentiate questions within an assessment tool
Answer_ID	Integer		The internal ID used by CANVaS to differentiate answers within an assessment tool. This value is required for importing assessment data into the system.
Answer_Desc	String	MAX	The description of the meaning of the answer for a specific question
Answer_Value	Integer		The CANS reflected answer value as based upon the 0 – 3 scale. A value of -1 is reflected as “Not Applicable”
Question_Clarification	String	Mac	This text clarifies the constraints of the particular question being asked

The assessment tool export option provides a means to facilitate the creation of the crosswalk or assessment tools in your local system. All of the elements in the export are optional except for the “Answer_ID” field value which is required by the Import Process. The “Answer_ID” is unique to each specific question/module/tool. This uniqueness was necessary as several of the tools had similar modules with similar questions, but the answers had slightly different meanings. Moreover, it maintains a history. In the event that an answer or question evolves over time it allows the original answer to be retired without losing or mixing data. The retired answer will link up to assessments that were performed using that value.

Import Process

The original and primary goal of CANS and the CANVaS application is to provide OCS localities and partners with real-time feedback and recommendations based upon a child’s assessment scores through the various decision support algorithms being developed and included into the CANVaS application. The Import process when used in conjunction with certain elements of the Export process provides a high level of this functionality without creating the additional burden for some localities of performing dual entry of consumer assessment data into separate systems.

There are two datasets that can be imported into the CANVaS system. The first set is the consumer demographics data, and the second is the actual assessment scores data.

Consumer Data Import

Consumer data must exist in the CANVaS system before assessment data can be submitted. The accepted file format is a text, comma-delimited format. As outlined in the table below, several fields are optional. Optional fields that contain no data still must have a placeholder in the comma-separated file in order for the application to parse the data successfully.

Consumer Data Import

Field No	Field Name	Data Type	Length	Comments/Description	Required
1	Internal_ID	String	30	This is your unique identifier for the consumer	Yes
2	CSDS_ID	String	16	Planned Permanent Caregiver	No
2	Last Name	String	30	Consumer's Last Name	Yes
3	First Name	String	25	Consumer's First Name	Yes
4	Gender	Character	1	M = Male, F = Female	Yes
5	Date Of Birth	Date		Consumer's Birth Date	Yes
6	Social Security No.	String	11	Consumer's SSN	No
7	Medicaid ID	Integer		Consumer's Medicaid Number	No
8	Ethnicity	Integer		Consumer's Ethnic Status: 1 = Puerto Rican, 2 = Mexican	No
9	Zip Code	String	10	Consumer's Zip Code – may be of length 5 or 10 characters	No
10	Middle Name	String	25	Consumer's Middle Name	No
11	Mother's Maiden Name	String	25	Relationship of the Planned Permanent Caregiver	No
12	Race Indicator – Native American	Integer		0 = Not Native American, 1 = Native American	Yes
13	Race Indicator – Asian	Integer		0 = Not Asian, 1 = Asian	Yes
14	Race Indicator – Black	Integer		0 = Not African American, 1 = African American	Yes

Consumer Data Import					
Field No	**Field Name**	**Data Type**	**Length**	**Comments/Description**	**Required**
15	Race Indicator – White	Integer		0 = Not White, 1 = White	Yes
16	Race Indicator – Hawaiian	Integer		0 = Not Native Hawaiian, 0 = Native Hawaiian	Yes

Assessment Data Import

The assessment data import process is designed so that only the answers selected for a particular tool are required for the assessment. Therefore, the assessment data layout appears much smaller than the demographic layout but typically will contain many more rows. All of the fields in the Assessment Import format are required.

Assessment Data Import					
Field No	**Field Name**	**Data Type**	**Length**	**Comments/Description**	**Required**
1	Internal_ID	String	20	This is the consumer's ID as submitted in the Demographic Import that reflects the ID of the consumer in your system	Yes
2	Certified_CANS_Professional_ID	String	25	This is the provider's ID associated with the professional responsible for administering the CANS to the consumer. This must be a registered and currently certified clinician.	Yes
3	Assessment_Date	Date		This is the date the assessment was completed	Yes
4	Assessment_Reason_CD	Integer		1 = Initial Assessment, 2 = Reassessment, 3 = Transition/Discharge	Yes
5	Answer_ID	Integer		This is the identifier provided by DMHA for the corresponding answer of each question within the assessment	Yes

Requirements and Considerations:

- The “Internal_ID” value must match an existing consumer submitted by the organization prior to the submission of the assessment.
- The “Certified_CANS_Professional_ID” value (also called “Clinician_ID”) must be registered with a certified individual within the CANVaS system prior to the submission of the assessment. This information is obtained via one of two methods. The information is either supplied to the CANVaS via the Certification Website when a user registers and is certified or by contacting the CANVaS support center and registering the users.
- The “Assessment_Date” must be dated prior to the expiration of a certified CANS clinician’s certification. It also cannot be a date in the future.
- The “Answer_ID” field must coincide with the IDs supplied by DMHA and the CANVaS system for the CANS tools. This assures us consistent data and valid algorithm recommendations.
- It is recommended that CANS tools be monitored. Changes in an answer definition could force the system to generate a new Answer_ID for a particular question, and the previous one would then be retired.
- Do not include a header row in the import file. The field names displayed in the tables are for reference only and should not be included in the text file.
- When submitting an import, only records with errors need to be resubmitted. Records that have already been processed will be ignored in the case of the Assessment Import and updated in the case of the Consumer Import.

When generating a crosswalk or integrating the CANS tools into your application the following items need to be considered:

- All answers submitted must correspond to the same assessment tool. Several tools have similar questions/modules and answers; however, each answer has its own unique identifier. Substitution of an “Answer_ID” from another tool/module/question will result in the rejection of the assessment.
- All assessments must be submitted as complete assessments. No modifications of an assessment can be made after it is submitted via the import process. If an assessment is partially incomplete, enter it in through the web interface and return to it later to complete it.
- All assessments have core modules and possibly some specialty or extension modules. When an assessment is submitted, all core modules are required to have a valid answer or else the import process will reject the assessment. Extension modules will be evaluated based upon the answers supplied in the respective core modules.
- Some modules currently have “Not Applicable” as an available option. In these modules, the “NA” value will be required for each question within the module for it to apply to the whole module. Failure to do so will result in an incomplete assessment.

Import Error Log

The Import Error Log page will give you the ability to print off current or historical import error reports. The reports are listed most recent to oldest and are differentiated by either “Assessment” or “Consumer” imports. The Import Error Log page also displays the number of records reviewed in the import and the number of errors found. Errors reported on the “Consumer” import are on a consumer by consumer basis. Errors reported on the “Assessment” import are on an assessment by assessment basis.

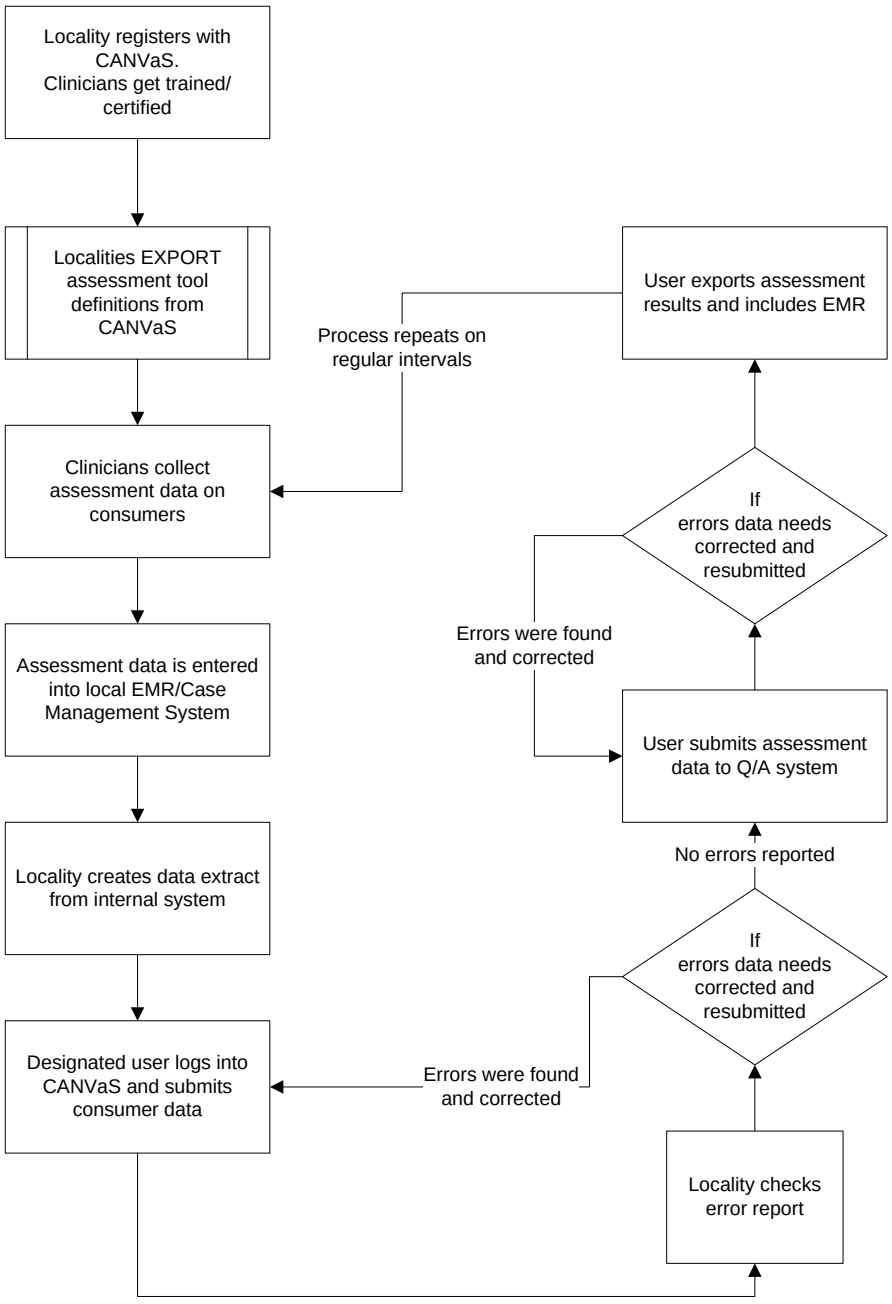
Consumer errors will be reported in the log by the record number. Below are the errors that the system currently checks:

- Missing fields – Checks for missing data in required fields and invalid record format layout.
- Invalid characters – Checks for invalid characters (e.g. \;”@ ‘ $).
- Invalid format – Check for invalid format in some fields like SSN and Zip Code.

Assessment errors will be reported in the log by the provider’s “Consumer_ID” (provided that the “Consumer_ID” exists) and the error that was discovered in the assessment.

Errors that the system currently checks for are as follows:

- Incomplete assessments – missing an answer from a core module or missing an answer from an extension module that was triggered from the core assessment
- Assessments with answers from different or non-existent tools
- Invalid assessment date – prior to clinician’s certification or date after today
- Invalid consumer identifier

Locality/CANVaS Import/Export Interaction Process

Tuesday, January 13, 2009